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DETAILED SOIL SURVEY OF Mg3a, Mg3c and Mg4a  
(KETHAN NADI) SUB WATERSHEDS, MATATILLA  
CATCHMENT, TEHSILS MUNGAOLI & SIRONJ,  
DISTRICTS GUNA AND VIDISHA M.P.

ABSTRACT

1. Survey area : Mg3a, Mg3c and Mg4a (Kethan nadi) subwatersheds, tehsils Mungaoli and Sironj District Guna and Vidisha, Madhya Pradesh.
2. Total area 12,688 hectares.
3. Period of survey : Dec., 83 to March, 1984
4. Kind of survey : Detailed soil survey
5. Subwatershedwise distribution of area by each series.

(Area in hectares)

S. No.	Soil Series	Total area %	Subwatersheds		
			Mg3a %	Mg3c %	Mg4a %
1.	Antralia	3059 (24.2)	348 (1.10)	1720 (34.7)	991 (21.7)
2.	Baloda	2155 (16.9)	446 (14.0)	233 (4.7)	1476 (32.4)
3.	Fatehpur	51 (0.4)	-	51 (1.0)	-
4.	Jaggakhedi	419 (3.3)	275 (8.7)	119 (2.4)	25 (0.5)
5.	Kamliakheri	67 (0.5)	-	44 (0.9)	23 (0.5)
6.	Panchdaria	1243 (9.7)	574 (18.1)	502 (10.1)	167 (3.7)
7.	Runeja	685 (5.5)	52 (1.6)	458 (9.3)	175 (3.8)
8.	Sarol	4922 (38.8)	1450 (45.7)	1799 (36.4)	1673 (36.7)
	Misc. land	87 (0.7)	29 (0.9)	24 (0.5)	34 (0.7)
	Grand Total	12688 (100.0)	3174 (100.0)	4950 (100.0)	4564 (100.0)

Subwatershed wise Distribution of Area under  
Different Erosion classes

S.No.	Erosion class	Total	Mg3a	Mg3c	Mg4a
1.	Moderate (e2)	5102 40.2	1392 (43.9)	1784 (36.0)	1926 (42.4)
2.	Severe (e3)	7499 (59.1)	1753 (55.2)	3142 (63.5)	2604 (56.9)
	Misc.	87 (0.7)	29 (0.9)	24 (0.5)	34 (0.7)
	Grand total	12688	3174	4950	4564
	Percentage:	(100.0)	(100.0)	(100.0)	(100.0)

7. Area under different land capability :

Capability unit	Area in ha.	Percentage
II	4770	37.6
III	738	5.8
IV	5165	40.7
VI	1219	9.6
VII	709	5.6
Misc.	87	0.7
TOTAL	12688	100.0



## Salient features & specific problems

Of the total area of 12688 hectares nearly 10,673 hectares (about 84.2 percent ) is suitable for agriculture.

Nearly 15.2 percent of the land is under very shallow to shallow soils and needs special soil and water conservation measures.

About 7093 hectares (55.9 percent) area is severely eroded.

An area of 1243 hectares under Panchdaria series require vegetations and engineering measures and protection from grazing etc.